

# Propane, 1,1,3-trichloro-1,2,2,3,3-pentafluoro-

<b>Other names:</b>	1,1,3-trichloro-1,2,2,3,3-pentafluoropropane
<b>Inchi:</b>	InChI=1S/C3Cl3F5/c4-2(5,9)1(7,8)3(6,10)11
<b>InchiKey:</b>	PSVOCRUYXNEMNE-UHFFFAOYSA-N
<b>Formula:</b>	C3Cl3F5
<b>SMILES:</b>	FC(F)(Cl)C(F)(F)C(F)(Cl)Cl
<b>Mol. weight [g/mol]:</b>	237.38
<b>CAS:</b>	1652-81-9

## Physical Properties

Property code	Value	Unit	Source
gf	-1026.94	kJ/mol	Joback Method
hf	-1159.27	kJ/mol	Joback Method
hfus	9.27	kJ/mol	Joback Method
hvap	27.45	kJ/mol	Joback Method
log10ws	-3.62		Crippen Method
logp	3.554		Crippen Method
mcvol	98.700	ml/mol	McGowan Method
pc	3138.51	kPa	Joback Method
tb	345.70 ± 2.00	K	NIST Webbook
tc	542.98	K	Joback Method
tf	223.54	K	Joback Method
vc	0.407	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	176.61	J/mol×K	366.99	Joback Method
cpg	184.40	J/mol×K	396.32	Joback Method
cpg	191.42	J/mol×K	425.65	Joback Method
cpg	197.72	J/mol×K	454.99	Joback Method
cpg	203.33	J/mol×K	484.32	Joback Method
cpg	208.31	J/mol×K	513.65	Joback Method
cpg	212.70	J/mol×K	542.98	Joback Method

# Sources

<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C1652819&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C1652819&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>

# Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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